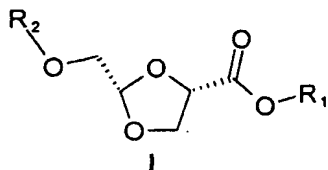


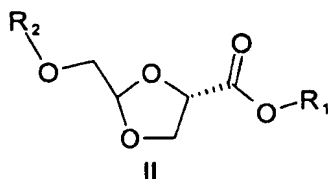
**CLAIMS**

1. A process for producing a compound of formula I:



said process comprising the steps of:

- a) subjecting a compounds of formula II:



to an enzymatic diastereomeric resolution in the presence of a suitable amount of enzyme chosen from Pig Liver Esterase or Porcine Pancreatic Lipase;

- b) recovering said compound of formula I

wherein;

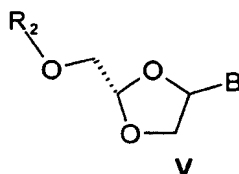
R<sub>1</sub> is chosen from C<sub>1-12</sub> alkyl, C<sub>2-12</sub> alkenyl, C<sub>2-12</sub> alkynyl, C<sub>6-12</sub> aryl, C<sub>3-10</sub> heterocycle, C<sub>6-12</sub> aralkyl or C<sub>3-10</sub> heteroaralkyl; and

R<sub>2</sub> is a hydroxyl protecting group.

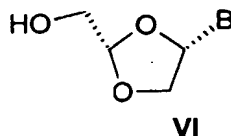
2. The process according to claim 1, wherein R<sub>1</sub> is C<sub>1-12</sub> alkyl.

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3. The process according to claim 1 wherein  $R_2$  is chosen from: CO-C<sub>1-6</sub> alkyl, CO-C<sub>6-12</sub> aryl, CO-C<sub>1-6</sub> alkoxy, CO-C<sub>6-12</sub> aryloxy, or CO-C<sub>6-12</sub> arylalkyl.
4. The process according to claim 1, wherein  $R_2$  is CO-C<sub>6-12</sub> aryl.
5. The process according to claim 1, wherein the enzyme is Pig Liver Esterase.
6. The process according to claim 1, wherein the enzyme is Porcine Pancreatic Lipase.
7. The process according to claim 1, further comprising the steps of:
  - a) replacing the functional group at position C4 of the compound of formula I to produce a compound of formula V:



- b) removing the group  $R_2$  of said compound of formula V;
- c) recovering a compound of formula VI:

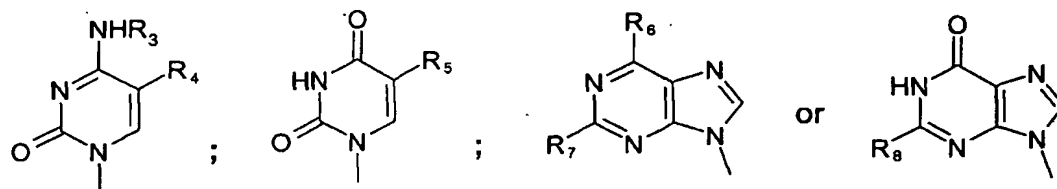


or a pharmaceutically acceptable salt thereof;

wherein;

B is purine or pyrimidine base or an analogue thereof.

8. The process according to claim 7, wherein B is chosen from:



wherein;

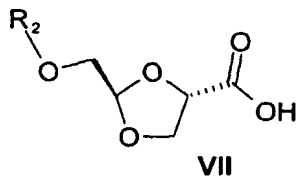
R<sub>3</sub> is chosen from H, C<sub>1-6</sub> alkyl, C<sub>1-6</sub> acyl and CO-R<sub>9</sub>;

wherein R<sub>9</sub> is H or C<sub>1-6</sub> alkyl;

R<sub>4</sub> and R<sub>5</sub> are each independently chosen from H, C<sub>1-6</sub> alkyl, bromide, chloride, fluoride, iodide or CF<sub>3</sub>; and

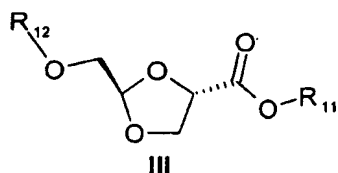
R<sub>6</sub>, R<sub>7</sub> and R<sub>8</sub> are each independently chosen from H, bromide, chloride, fluoride, iodide, amino, hydroxyl or C<sub>3-6</sub> cycloalkylamino.

9. The process according to claim 1, further comprising the step of recovering a compound of formula VII:



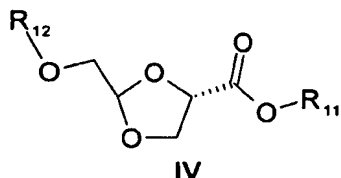
10. A process according to claim 1, wherein R<sub>1</sub> is C<sub>1-12</sub> alkyl and R<sub>2</sub> is CO-C<sub>6-12</sub> aryl.
11. A process according to claim 1, wherein R<sub>1</sub> is methyl and R<sub>2</sub> is benzoyl.

12. A process for producing a compound of formula III:



said process comprising the steps of:

a) subjecting a compounds of formula IV:



to an enzymatic diastereomeric resolution in the presence of a suitable amount of enzyme chosen from Candida Antarctica "A" lipase, Candida Antarctica "B" lipase, Candida Lypolitica Lipase or Rhizomucor Miehei Lipase;

b) recovering said compound of formula III;

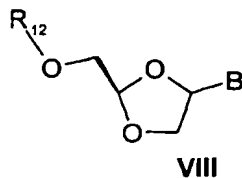
wherein;

$R_{11}$  is chosen from  $C_{1-12}$  alkyl,  $C_{2-12}$  alkenyl,  $C_{2-12}$  alkynyl,  $C_{6-12}$  aryl,  $C_{3-10}$  heterocycle,  $C_{6-12}$  aralkyl or  $C_{3-10}$  heteroaralkyl; and

$R_{12}$  is a hydroxyl protecting group.

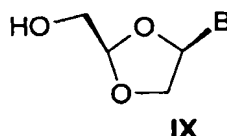
13. The process according to claim 12, wherein  $R_{11}$  is  $C_{1-12}$  alkyl.

14. The process according to claim 12 wherein  $R_{12}$  is chosen from: CO-C<sub>1-6</sub> alkyl, CO-C<sub>6-12</sub> aryl, CO-C<sub>1-6</sub> alkoxy, CO-C<sub>6-12</sub> aryloxy, or CO-C<sub>6-12</sub> arylalkyl.
15. The process according to claim 12, wherein  $R_{12}$  is CO-C<sub>6-12</sub> aryl.
16. The process according to claim 12, wherein the enzyme is Candida Antarctica "A" lipase.
17. The process according to claim 12, wherein the enzyme is Candida Antarctica "B" lipase.
18. The process according to claim 12, wherein the enzyme is Candida Lypolitica Lipase.
19. The process according to claim 12, wherein the enzyme is Rhizomucor Miehei Lipase.
20. The process according to claim 12, further comprising the steps of:
  - a) replacing the functional group at position C4 of the compound of formula III to produce a compound of formula VIII:



- b) removing the group  $R_{12}$  of said compound of formula VIII;

c) recovering a compound of formula IX:

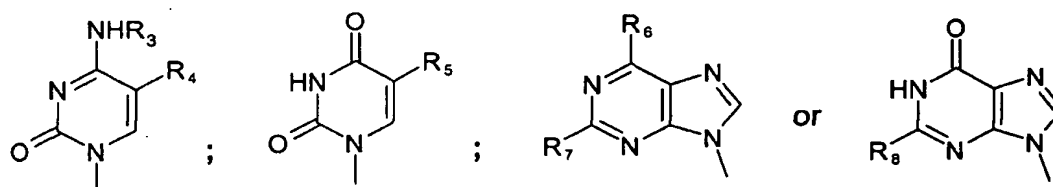


or a pharmaceutically acceptable salt thereof;

wherein;

B is purine or pyrimidine base or an analogue thereof.

21. The process according to claim 20, wherein B is chosen from:



wherein;

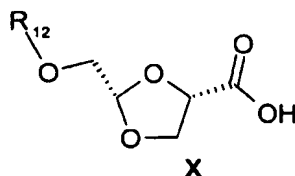
R<sub>3</sub> is chosen from H, C<sub>1-6</sub> alkyl, C<sub>1-6</sub> acyl and CO-R<sub>9</sub>;

wherein R<sub>9</sub> is H or C<sub>1-6</sub> alkyl;

R<sub>4</sub> and R<sub>5</sub> are each independently chosen from H, C<sub>1-6</sub> alkyl, bromide, chloride, fluoride, iodide or CF<sub>3</sub>; and

R<sub>6</sub>, R<sub>7</sub> and R<sub>8</sub> are each independently chosen from H, bromide, chloride, fluoride, iodide, amino, hydroxyl or C<sub>3-6</sub> cycloalkylamino.

22. The process according to claim 26, further comprising the step of recovering a compound of formula X:



23. A process according to claim 12, wherein  $R_{11}$  is  $C_{1-12}$  alkyl and  $R_{12}$  is CO- $C_{6-12}$  aryl.
24. A process according to claim 12, wherein  $R_{11}$  is methyl and  $R_{12}$  is benzoyl.